

Maintenance of Certification and Pediatrics Milestones–Based Assessment: An Opportunity for Quality Improvement Through Lifelong Assessment

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THE AMERICAN BOARD of Pediatrics (ABP) is 1 of 24 certifying boards that belong to the American Board of Medical Specialties. The role of the certifying boards is to provide assurance to the public that a physician holding a specialty board's certificate is (initial certification) and remains (maintenance of certification) competent to practice in that particular specialty or subspecialty. It is hoped that the Pediatrics Milestones–based assessments will be useful in determining readiness of residents and fellows to practice without direct supervision in that specialty or subspecialty—a condition required to sit for the board's certifying examination. Although a trainee's status must be verified as competent in order to register for and take the exam, few physicians, if any, will ever be at the level of mastery in all areas. Thus, valuable information about areas for individual development will reside in those final milestones assessments during training. Unfortunately, in the current environment, when trainees take and pass their specialty or subspecialty certifying examinations, that valuable information may be easily ignored, lost, or even suppressed. Further, a trainee who has been paying attention may well wonder why the frequent observation and behaviorally based feedback about progress along the developmental continuum should end at the end of formal training. This will require culture change: witness the cynical medical school adage that “P = MD”—which is to say, after medical school is over, your performance there is a closed book. If the milestone (and related entrustable professional activities) evaluations during graduate medical education receive the same treatment, then much of their potential benefit will be lost.

Certainly there is no disagreement that learning and attainment of skills must not stop at the end of formal training; this is the basis for the requirements of Parts II (Lifelong Learning and Self-Assessment) and IV (Performance in Practice) of Maintenance of Certification (MOC). One important implication of the Pediatrics Milestones project for MOC is that competency-based assessment—if it is proven valid and effective—could be used

throughout a career, not just during formal training. Certainly, the existing Pediatric Milestones are designed to extend from beginner to master and thus cover the whole of a professional career. Can, or should, the existing milestones be used for assessment in settings other than formal training? What are the practical implications of the requirement for direct observation in terms of resources needed, including financial, the significant time involved in training observers, and the time it would take away from practice for observers and for debriefing? Although those with experience with this method may find it comfortable, it is easy to imagine that those new to it will find it uncomfortable and may resent the need for direct observation. An additional challenge will be the evolution over time of specific milestones themselves. In addition, as an individual approaches mastery, more granularity between “competent” and “master” may be needed in order to identify areas for growth. In particular, mastery may be an evolving target: who hasn't hiked up a mountain and gone over the final rise, certain that the top would be right there, only to find that the peak is still far away and much higher up?

An important challenge for the use of Pediatrics Milestones and competency-based assessment in maintenance of certification will be the high-stakes nature of any assessment that is used for the purpose of certifying to the public that a physician is competent to practice. During training, most of the evaluations that a resident experiences will be formative, with summative (high stakes) assessment seeming to occur only at the end of training. Rigorous evaluation of the validity and reliability of the Pediatrics Milestones–based assessment data will be essential before this form of assessment can be accepted for posttraining, high-stakes decisions. However, because competency is what ongoing certification is intended to document, it follows that exactly what we should be doing is ongoing competency-based assessment.

Moving to a Milestones and competency-based assessment process for ongoing certification during a professional

career will not happen overnight. However, there are a number of ways that the current Pediatrics Milestones–based assessments might be used as a part of lifelong learning and skill building, built into current MOC Part II and IV activities, that will allow pilot testing and potential assistance in developing the definition of mastery in parallel with the implementation and evaluation of Pediatrics Milestones in graduate medical education that is now being undertaken.

It is well documented that self-assessment alone will not adequately identify a practitioner’s areas of weakness.^{1,2} Using a milestones approach in the setting of MOC Part II, for which certified physicians must demonstrate engagement in lifelong learning, offers a way to overcome this problem. Although continuing medical education (CME) has come a long way in recent years³—we know now that some kind of self-assessment to identify learning needs, and some kind of outcome assessment to evaluate what was learned, makes the CME experience far more valuable—a logical extension would be a CME course that used behaviorally based evaluation rather than the traditional multiple choice question quiz to show that the participant has learned something. This could include a precourse observation (behavioral assessment) and a postcourse assessment (preferably after a period of time) that could be either in a simulated setting or in the practice setting. This sort of activity would meet—and exceed—all current requirements for ABP MOC Part II activities.

A Pediatrics Milestones–based approach relevant to Part IV, Performance in Practice and Quality Improvement, might use a set of developmental milestones around quality improvement practice. Using a scheme borrowed in part from the Association of American Medical Colleges Te4Q program,⁴ the ABP, the American Academy of Pediatrics, and Children’s Hospital Association have identified 4 stages of competence in quality improvement, starting with “familiar” and progressing through “proficient” to “expert” and then “master.” A next step will be to develop behavioral descriptors that would allow objective assessment of the progress of a particular practitioner along this developmental continuum. Using those stages of development as the basis for awarding MOC Part IV points, merit badges, or other designations of expertise would leverage the concept of milestones to assist practitioners with mastering the essential concepts of quality improvement. The ABP is currently developing a Performance Improvement Module on Motivational Interviewing that incorporates some of

the Pediatric Milestones into the assessments within the module. As access to Part IV activities is extended to residents in the coming year, this module will enable faculty to explicitly assess specific milestones while simultaneously earning MOC Part IV credit and improving care.

There is no argument that competency in practice is essential to improved health outcomes for our patients.⁵ What is not yet clear is whether we have the means to adequately assess competency. The milestones approach holds immense promise to improve the accuracy and reliability of assessments of practitioners, from the student years through a lifetime of practice. Of course, the Holy Grail is how the milestones assessments relate to clinical outcomes for our patients. Research over the next several years will help identify the competencies and the specific milestones that are most closely associated with morbidity, mortality, and quality of life for our patients. We will determine what level of performance is essential for any particular milestone; we may find that some milestones or levels of performance do not correlate with important health outcomes at all.

The pediatric community has led the way in competency-based assessment. Implementation of the Pediatric Milestones Project, research about the reliability of the assessments and the relationship of the Milestone-based assessments to patient-important outcomes will facilitate further refinements in the milestones. The ABP is committed to working with the Pediatric Milestones Project to develop ways in which this type of assessment can be used beyond the training years.

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